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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,592	04/17/2000	Hiroichi Inada	KPO-138	1046

23353 7590 05/24/2004

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EXAMINER

WONG, ALLEN C

ART UNIT	PAPER NUMBER
2613	10

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/550,592

**Applicant(s)**

INADA ET AL.

**Examiner**

Allen Wong

**Art Unit**

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,7-9,12 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9,12 and 15-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 7-9, 12 and 15-24 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto (5,620,560) in view of Wu (5,577,130).

Regarding claim 1, Akimoto discloses a substrate processing system comprising:

first and second processing units adapted to process a substrate by a first treatment and a second treatment, respectively (col.3, ln.63 to col.4, ln.33, note Akimoto discloses the multiple processing sections for carrying out the resist coating and developing process where it includes the application of hydrophobic process to the substrate before applying photoresist with the spin coater or spin chuck); and

a transfer apparatus adapted to convey the substrate between the processing units including a substrate carrying arm adapted to hold the substrate when the transfer apparatus conveys the substrate (col.4, ln.6-13; in fig.1, a transfer system or apparatus is disclosed in that the main arm 5 can carry the wafer or substrate from one processing

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unit to another one of many processing units 7, 7A, 8, 10, 11, 12 and 20, where liquid or the hydrophobic processing, adding the photoresist, and the heat or thermal treating processes are disclosed).

Akimoto does not disclose a first image pickup means, wherein the first image pickup means, used to pickup an image of a member of the processing units or the substrate being placed in the processing units, is mounted to the transfer apparatus such that the first image pickup means moves together with the substrate carrying arm at least when the substrate carrying arm is moving in a first direction. However, Wu discloses the use of a first image pickup means, where the image pickup means is mounted to the transfer apparatus (fig.1, note element 20 is a camera that picks up images, and the camera 20 is attached or mounted to the transfer apparatus, where element 16 is an object or substrate carrying arm, element 18 are fingers that pickup the object or substrate and that image pickup means 20 moves together with the substrate carrying arm 16). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Akimoto and Wu, as a whole, for implementing the image pickup means to efficiently capture the images during the movement of the substrate with the carrying arm so as to obtain a clearer view of the wafer or substrate processing tasks at hand during semiconductor applications. Also, according to court law, it would have been obvious to one of ordinary skill in the art to adjust or shift the location of the image pickup means to any location that would be convenient to provide the user a clearer view of the situation at hand.

Note claims 7-9, 12, 15-24 and 26-27 have similar corresponding elements.

Regarding claim 2, Akimoto does not disclose using the second image pickup means. Therefore, it would have been obvious to one of ordinary skill in the art to duplicate the image pickup means for a multiplied effect of providing the user a clearer view of the situation at hand. In other words, the additional use of another image pickup means is not synergistic, and this innovation is not the type for which a patent monopoly is to be granted.

2. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto (5,620,560) and Wu (5,577,130) in view of Hawkins (6,126,744).

Akimoto and Wu do not disclose the judging means to judge the process conditions based on the color tone or color shading of the substrate. However, Hawkins teaches that the determination of the process condition is based on color tones (fig.11 and col.15, ln.60 to col.16, ln.15). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Akimoto, Wu and Hawkins as a whole for aiding the adjustment necessary for proper heating of the substrate during semiconductor applications.

#### ***Contact Information***

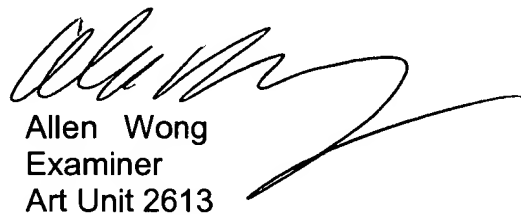
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Allen Wong  
Examiner  
Art Unit 2613

AW  
5/20/04